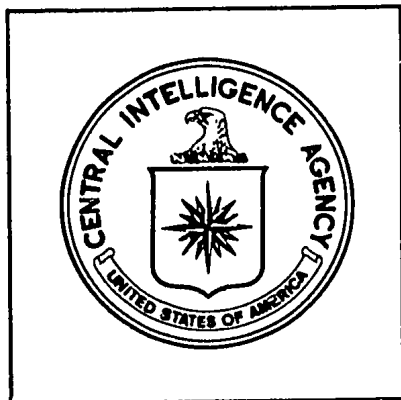


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*Flexibility in Soviet Offensive Concepts:
The Roles of Armor and Other Ground Forces*

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CENTRAL INTELLIGENCE AGENCY
Directorate of Intelligence
July 1975

RESEARCH PAPER

Flexibility in Soviet Offensive Concepts:
The Roles of Armor and Other Ground Forces

Preface

The arms reduction negotiations between NATO and the Warsaw Pact have focused renewed attention on the balance of forces in Central Europe. In this area, Western defense officials have been concerned by the size of Pact armored forces and the threat they pose to NATO. This concern has grown as Pact armored forces--already the world's largest--continue to increase in size and quality. This paper surveys the evolution of the basic types of units in the Soviet armored forces, how they are structured, and how they are to be used in the event of war.

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Comments and queries regarding this publication are welcome. They may be directed to [redacted] of the Theater Forces Division, Office of Strategic Research, [redacted]

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Summary

Soviet military planning in the nuclear era used to be based on the assumption that any war with NATO would be nuclear from the outset. Since the late sixties, however, Soviet operational concepts and weapon developments have reflected increasing stress on flexibility for nuclear or conventional war. The flexibility policy has occasioned some change in the expected combat role of armored forces, but that role is essentially the same in either type of conflict. And the Soviet tank force remains the largest in the world--a status which appears to be the result of several factors, including the offensive focus of Soviet land warfare doctrine as well as economic and institutional momentum.

Because their weapons and tactics had earlier been intended mainly for nuclear war, the Soviets had to deal with certain basic considerations in adapting to a policy of flexibility for conventional war:

- They could no longer rely exclusively on nuclear weapons to achieve the breakthrough in NATO defenses which must precede a massive offensive into enemy territory, a basic tenet of Soviet land warfare doctrine.
- NATO capabilities for stopping a conventional attack increased significantly with the proliferation of more effective antitank weapons.
- The massed forces required to create a breakthrough in NATO defenses during the conventional phase of a war would present a tempting target for the sudden introduction of nuclear weapons by the NATO forces, particularly if the breakthrough attempt were meeting with success.

The Soviets have taken steps over the past several years to compensate for these problems:

- The combined-arms tactics (and, to some extent, the more balanced force structure) which emerged in Soviet ground forces during World War II have been reemphasized with the return to conventional war planning.

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- The number of tanks in the infantry arm of the ground forces has been increased.
- Artillery forces have been enlarged and improved as additional guns and new self-propelled artillery have been introduced into the force.
- The ground attack capabilities of the tactical air forces have been upgraded as aircraft with greater conventional payloads have entered service.



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In attempting to break through well-prepared enemy defenses without the use of nuclear weapons, present Soviet doctrine calls for the assaulting forces to concentrate much of their artillery and combined-arms forces--primarily motorized rifle divisions--opposite a narrow sector of the defensive front. After an extensive artillery barrage, the combined-arms elements would be committed to secure a breach in the defenses through which large tank units would advance.

Because of the Soviets' commitment to tank warfare--underscored when they recently started large-scale production of a new generation of tanks--it is likely that Soviet offensive doctrine will continue to be based on large tank forces. The main impact of changes in land warfare policy has been, and probably will continue to be, on the equipment and tactics of the supporting arms.

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The Offensive Imperative and
Implication for Armored Forces

Soviet military doctrine for the conduct of land war calls for rapid development of an offensive or counteroffensive to carry the conflict into enemy territory. This offensive cast in Soviet doctrine--

probably evolved from a resolve not to repeat the historical Russian experience of retreating until a counteroffensive could be mounted against an overextended enemy.

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In Europe, a primary objective of such an offensive is to forestall the mobilization of NATO military forces. Soviet writers state that advances in mobility and firepower--particularly of nuclear weapons--will make any war with NATO of unparalleled intensity and short duration. Thus, operations must be immediate and decisive.

The dominance of armor in Soviet ground forces over the past several decades is a natural consequence of the Soviet emphasis on a rapidly developed land offensive. The operational principles proven in the successful counteroffensives against the German army during the later stages of World War II cast the tank in a central role. The mobility, firepower, and survivability of armored forces underscored their value relative to other ground forces during the decade prior to the mid-sixties, when Soviet military planners believed that war in Europe would be nuclear from the outset. And when in the late sixties these planners were forced to contend with the possibility of both conventional and nuclear conflict, armored forces were still believed to offer a maximum of flexibility.

Soviet tank forces are the largest in the world. In Central Europe alone, the Soviets have some 9,100 tanks in active units, and the forces of their East German, Polish, and Czechoslovak allies bring the Warsaw Pact total directly opposite the NATO Central Region to 16,000. By comparison, the active total for combined NATO forces in the Central Region (West Germany and

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the Benelux countries)--including US, UK, French, West German, Belgian, Dutch, and Canadian units--numbers only about 6,000.

This continuing monumental commitment to tanks is not easily explained in terms of objective military requirements. Why does the Pact, with roughly the same numbers of men in Central Europe as NATO, require two and one-half times as many tanks as NATO's forces--themselves heavily armored by any previous Western standard? The answer must be speculative since only fragmentary evidence on the Soviet force planning process is available. Such evidence as is available, however, suggests the influence of powerful institutional factors.

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The Soviet tank generals in the early sixties successfully defended the primary role of Soviet armor against attacks instigated by Khrushchev and led by their rivals in the infantry and artillery branches. Soviet armor organization and doctrine have continued intact since that period.

The nature of the Soviet economy may be another factor favoring the armored forces. Tank production provides a conspicuous symbol of the military aspects of the Soviets' traditional commitment to heavy industry. Soviet defense industry tends, moreover, to operate at relatively steady rates, with only gradual adjustments to accommodate changes in the threat from abroad or variations in year-to-year demand for military output. This institutional momentum appears to combine with the pressures of military organization and doctrine into a massive national commitment to tanks which presumably could be negated only by a political decision at the highest level or by a radical technological breakthrough which clearly made the tank obsolete.

The sheer massiveness of the Pact tank forces has been a focal point for virtually all European security considerations, particularly during the past decade.

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On the purely military side, much of US and NATO war planning and weapons procurement has been directed at the problem of defending against massive armor attacks and the blitzkrieg potential of the Pact forces. On the political plane, the predominance of tanks in the Pact forces is generally viewed as indicative of the threatening, offensive nature of these forces. Western arms control proposals have generally focused on reduction of Soviet tanks as a prerequisite for greater stability in Central Europe, and specific proposals to this effect have been advanced at the Mutual and Balanced Force Reductions talks in Vienna.

Against this background, widely publicized press accounts of the successful use of antitank weapons in the initial stages of the Arab-Israeli war of October 1973 have led some Western military writers to question the viability of large tank forces on the modern battlefield. By implication, this calls into question the wisdom of the Soviet investment in large tank forces.

Whether Soviet planners have been similarly impressed is not known, and it is probably too soon for any lessons the Soviets may have learned from the Arab-Israeli war to be reflected in their forces or doctrine. The improved technology and growing arsenal of NATO antitank weapons have been apparent to the Soviets for several years, however, and they have already shown this awareness in certain developments in their own forces and tactics. As has been the case in earlier Soviet responses to changing perceptions of battlefield conditions, such adjustments have not led to any diminution of the tank forces, or any major change in the way the Soviets see these forces performing. Rather, they have made even further increases to their tank strength.

Because of the Soviets' commitment to tank warfare--underscored when they recently started large-scale production of a new generation of tanks--it is likely that Soviet offensive doctrine will continue to be based on large tank forces. The main impact of changes in land warfare policy has been, and probably will continue to be, on the equipment and tactics of the supporting arms.

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Early Organization and Tactics

The Soviets' preeminence in number of tanks dates from the start of World War II. For a decade before then, however, they had experimented with various armored organizations and tactics. In the early thirties, the Soviets--like the Germans--agreed with the views of theoreticians like Lidell Hart, the British military commentator, that the tank had an independent role to play in battle. As a consequence, Soviet tank units were organized into independent brigades and corps and were to be used for critical breakthroughs of enemy defenses.

This organization was abandoned in the late thirties as its leading proponents fell victim to the Great Purge and their successors attempted to apply the lessons of a guerrilla war in Spain to large-scale European conflict. The result was that tanks were parceled out among infantry divisions as mobile firepower support.

The rapid destruction of the tank-supported infantry of the French army in May 1940 by a German blitzkrieg prompted the Soviets to reexamine the structure of their armored forces. They reestablished armored brigades and made them their basic armored maneuver unit in World War II. During that conflict, they used tank brigades independently and also combined them into tank armies to provide shock for an offensive. However, some tanks were still attached to infantry and mechanized units to provide firepower support.

In the final years of the war, the Soviets developed standard tactics against the Germans. Prior to an attack, massive preparatory bombardments by artillery and air forces were concentrated on a narrow sector of the enemy front. Norms were developed for the numbers of artillery pieces emplaced per kilometer of front, and several days were required to stockpile ammunition for each battle. Following the bombardment, infantry units would advance to secure a breach in the line through which armored and mechanized units would pass to envelop or pursue enemy forces.

The basic tactics employed in these operations brought the Soviets sustained successes and carried

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them in a series of leaps to Berlin. As a result, the operational concepts developed during the war became sanctioned as "historically correct" and have formed the basis for Soviet land warfare doctrine ever since.

In the years immediately following the war, a number of organizational changes occurred that were designed to incorporate some of the lessons of the war. Infantry, tanks, and artillery were integrated at the division level, resulting in a new ground forces structure. Of the three basic types of ground force divisions that evolved--rifle, tank, and mechanized--all included organic tank units. (See chart, next page.) Although the reorganization was accompanied by a reduction in the overall size of the forces, the number of divisions still totaled about 175. Of these, 100 were rifle divisions and the remainder mechanized or tank.

The Soviets did, however, continue to maintain large artillery formations and tactical air forces. During the latter stages of the war these forces had provided the firepower which had enabled the Soviets to break through heavily defended German lines time and time again. Soviet planners held that these tactics which had served them so well in World War II would be applicable in the future wars as well. This planning did not, however, reckon with the impact that tactical nuclear weapons would have on the operational doctrine of both sides.

Armor in the Era of Massive Nuclear Response

From the mid-fifties to about 1960, Soviet military planners and theoreticians were occupied with the problem of reconciling traditional ground offensive tactical concepts with the new nuclear arms environment. Initially, they decided that nuclear strikes could substitute for concentrated artillery and aerial bombardment, and artillery and tactical air forces were greatly reduced. Divisions were

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Changing Soviet Ground Force Organizational Pattern

World War II

Post-World War II

Present

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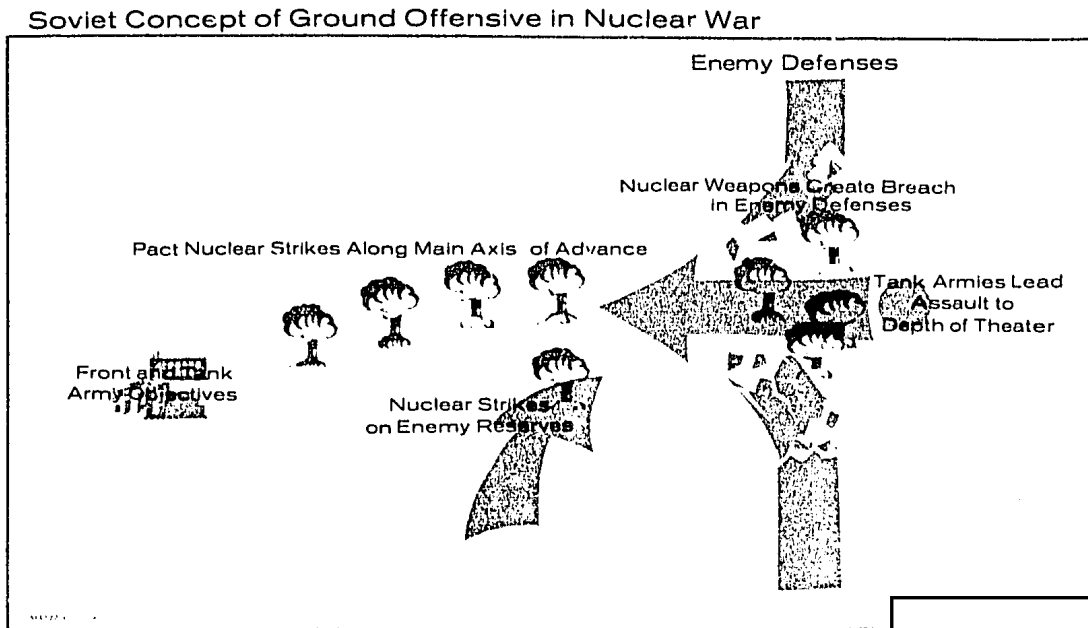
reduced in number and the ground forces were streamlined for nuclear combat. The large mechanized division, for example, was dropped, as were many of the divisional and nondivisional artillery units. Rifle divisions were given additional tanks so that they came to resemble the present-day Soviet motorized rifle division. Despite the reductions, the Soviets retained a sizable ground force comprising some 80 motorized rifle and 50 tank divisions.

As the USSR began to acquire strategic nuclear forces in the early sixties, Khrushchev, with an eye toward military economies and with the sympathies of proponents of strategic nuclear power within the military, exerted pressure for further reductions in the ground forces. War with the West, he argued, would be a decisive global conflict, its outcome determined largely by massive nuclear exchanges at the outset. Strategic exchanges also would decide any theater conflict.

Despite an emphasis on the decisiveness of strategic nuclear strikes and the lower priority assigned conventional forces in the early sixties, ground forces advocates managed to stave off further major reductions by arguing the imperatives of a large European ground campaign as part of a nuclear conflict with the West. As a result of their efforts, the role of ground forces in a nuclear conflict and the conduct of ground operations on a nuclear battlefield came to underlie--through the mid-sixties--the basic doctrinal rationale governing weapons procurement and tactical planning.

During this period the Soviet concept of ground operations in a nuclear environment viewed tank forces as having an even greater role than in World War II and the immediate postwar period. Soviet planners believed conditions on a nuclear battlefield would make unprecedented demands, as well as opportunities, for maneuver. Tank forces would be committed directly through gaps created by nuclear strikes

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to pursue surviving NATO troops, engage NATO reserves, and seize important areas in the NATO rear. (See diagram above.) Motorized infantry units would protect the flanks of advancing armored columns and deal with pockets of bypassed NATO forces.

Growing Concern for Flexibility and Conventional Capability

In the mid-sixties, Soviet military planners began once again to modify their views of the likely nature of a European conflict. Reacting to NATO's flexible-response strategy and benefiting from a more generous procurement climate for conventional forces following the ouster of Khrushchev, they began to plan for a war that, at least in its initial stages, would

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involve large-scale conventional operations. At the same time, however, they continued to recognize that nuclear weapons could be introduced suddenly and at any time.

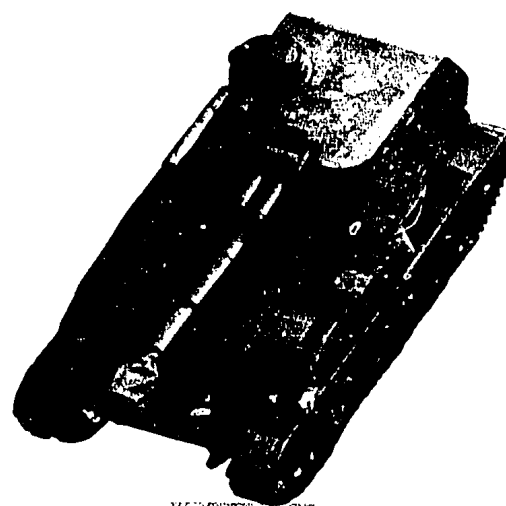
The concern for a period of conventional fighting presented the Soviet planners with certain basic problems. During a conventional period of conflict, the Soviets would have to rely on nonnuclear weapons to create gaps in NATO defenses. Yet, much of the conventional firepower of both ground and tactical air forces had fallen casualty to the "nuclear streamlining" of the late fifties and early sixties. Believing that NATO would resort to nuclear strikes if faced with rapid, extensive enemy penetration, Soviet planners had to deal with the conflicting demands of massing for conventional breakthrough and avoiding destruction by the enemy's sudden introduction of nuclear weapons. Complicating this problem was the fact that armored forces, the most flexible and survivable in the face of such a dilemma, had increasingly to confront improved antitank weapons in the hands of defenders. These concerns called for a fundamental rethinking to develop new weapons and tactics.

Growth of Conventional Artillery. In about 1966 the Soviets began to reintroduce some of the artillery that had been withdrawn from the ground forces under Khrushchev. The artillery in motorized rifle and tank divisions, for example, was increased by one-half to two-thirds: from 48 guns to 72 in the motorized rifle division and from 36 guns to 60 in the tank division. Except for tank divisions, which now have 12 guns less, the artillery strength of Soviet divisions has returned to the levels of the fifties.

Recent evidence indicates that the Soviets intend to increase divisional artillery even further.

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New Soviet Self-Propelled Artillery



Characteristics

122 mm

Gun

152 mm

17 Tons

Weight

26 Tons

5

Crew

5

1974

Entered Service


1973

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One recent innovation that is designed to provide better fire support for rapidly advancing troops is the introduction of 122mm and 152mm self-propelled artillery. (See photograph, at left.) Heretofore, the combination of high cost of self-propelled artillery--about twice that of towed artillery and prime movers--and the relatively low priority for conventional forces had apparently prevented the Soviet ground forces from adopting such weapons. The re-emergence of conventional requirements, coupled with the limited capability of towed artillery to keep pace with rapidly advancing armored units, probably led the Soviets to develop self-propelled artillery in the late sixties. In addition to the protection provided by their mobility, the new guns have armored crew compartments which ensure greater protection of the crew in both conventional and nuclear environments.

Tactical Air Forces. During World War II, Soviet tactical air forces had supplemented the artillery in the bombardment of enemy defensive positions to prepare for breakthroughs. With the introduction of tactical nuclear bombs and warheads, however, the requirement for conventional bombardment of defensive positions was greatly reduced. In the early sixties, the conventional ground attack capabilities of the tactical air forces were severely restricted as some 70 percent of the light bombers were taken out of service. The tactical air forces were reduced and reconfigured to become an air defense and nuclear strike force instead of the conventional striking force which had evolved from World War II.

Since the late sixties, however, efforts have been made to redress the conventional ground attack shortcomings of Soviet tactical air forces. Late-model MIG-21s have greater conventional payloads, and newer aircraft have been introduced with further improved ground attack capabilities. While these pro-

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Tank Increases. Since the mid-sixties, Soviet motorized rifle divisions [redacted]

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[redacted] have been allotted an independent battalion of about 50 tanks. In about 1969, moreover, tank battalions in motorized rifle regiments began to receive an additional ten tanks. Taken together, these constitute an addition of about 80 tanks per motorized rifle division, or an increase of about 40 percent. Some first-line Soviet motorized rifle divisions, such as those in East Germany, now have as many as 250 tanks--only 75 less than a tank division. Such increases have not yet been identified in all motorized rifle divisions but are believed to be continuing.

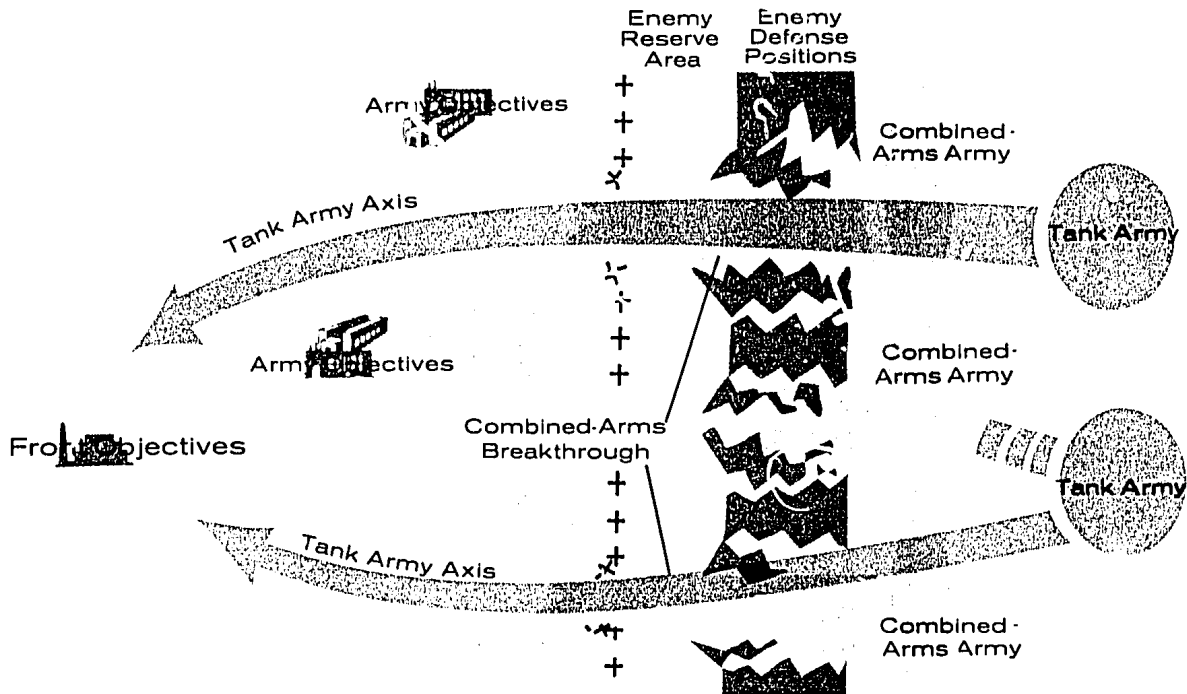
The reason or reasons for the increase in tanks in what is already an armor-heavy force is not clear. The additional tanks may be simply to compensate for heavier losses that Soviet planners expect to sustain from improved antitank defenses and to enable assaulting units to overwhelm these defenses by sheer numbers. Certainly the additional tanks will improve the staying power of the units in light of the incremental equipment losses that could be expected in a conventional conflict. The addition of an independent tank battalion to the motorized rifle division will provide the division commander with a reserve maneuver force to commit at a critical point or to use piecemeal as replacements to sustain the combat regiments.

Soviet Combined-Arms Concept for the Offensive Breakthrough

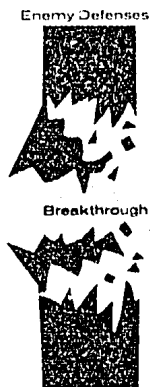
In a conventional assault, the commander of a Soviet wartime front with three to five subordinate armies probably would hold his tank armies in reserve and commit the combined-arms armies to break through the enemy's defensive positions. (See diagram at right.) A modern combined-arms army with three to five motorized rifle and tank divisions would usually have an offensive operational zone 70 kilometers or so wide. In a breakthrough attempt, however, the army

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Probable Soviet Concept of Movement By Tank and Combined-Arms Armies of a Wartime Front

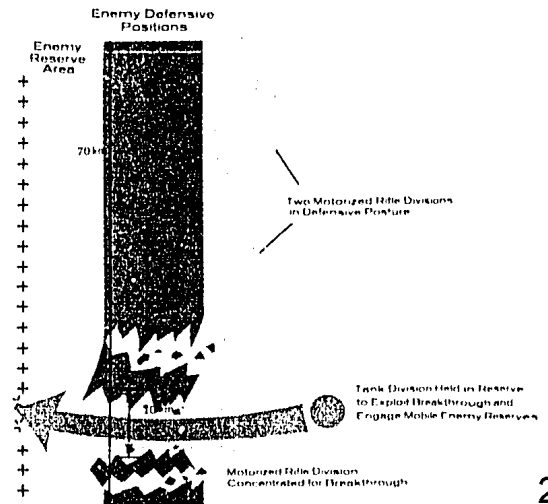


The Dispersal Concept - Nuclear or Conventional War



Pact Units
Advance Along
Separate Axes

Probable Operation of Individual Combined-Arms Army



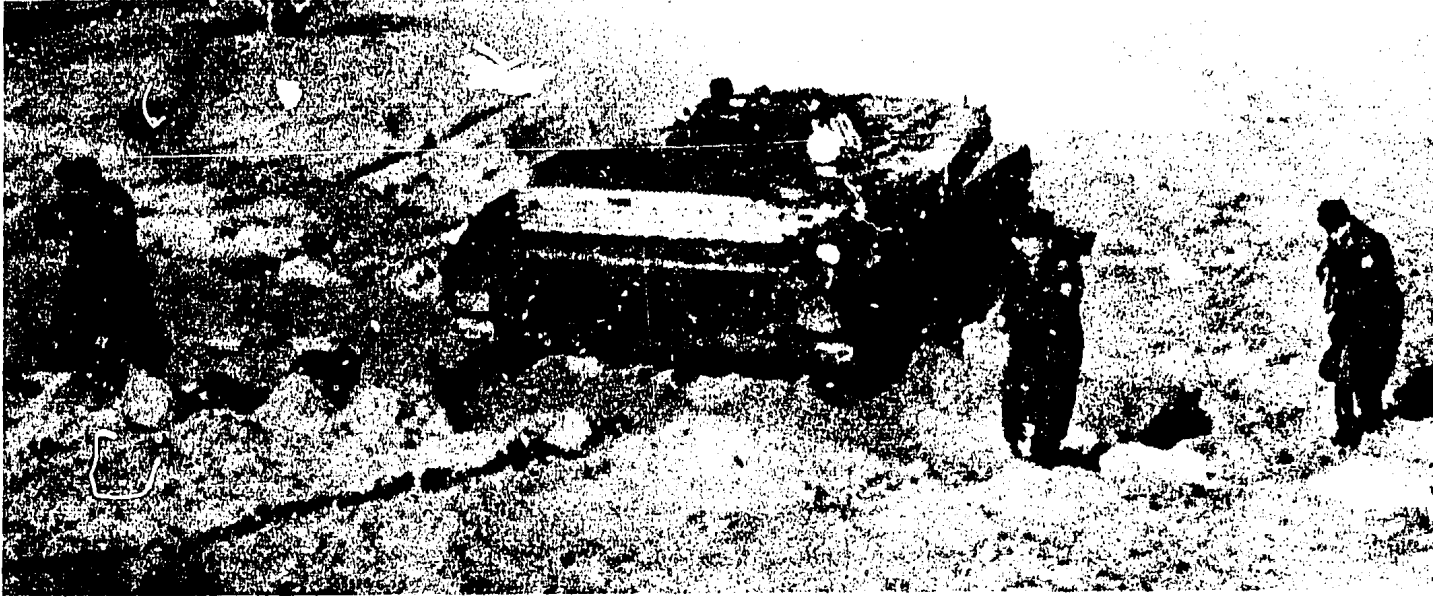
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Soviet Infantry Attack Supported by BMP Infantry Combat Vehicles



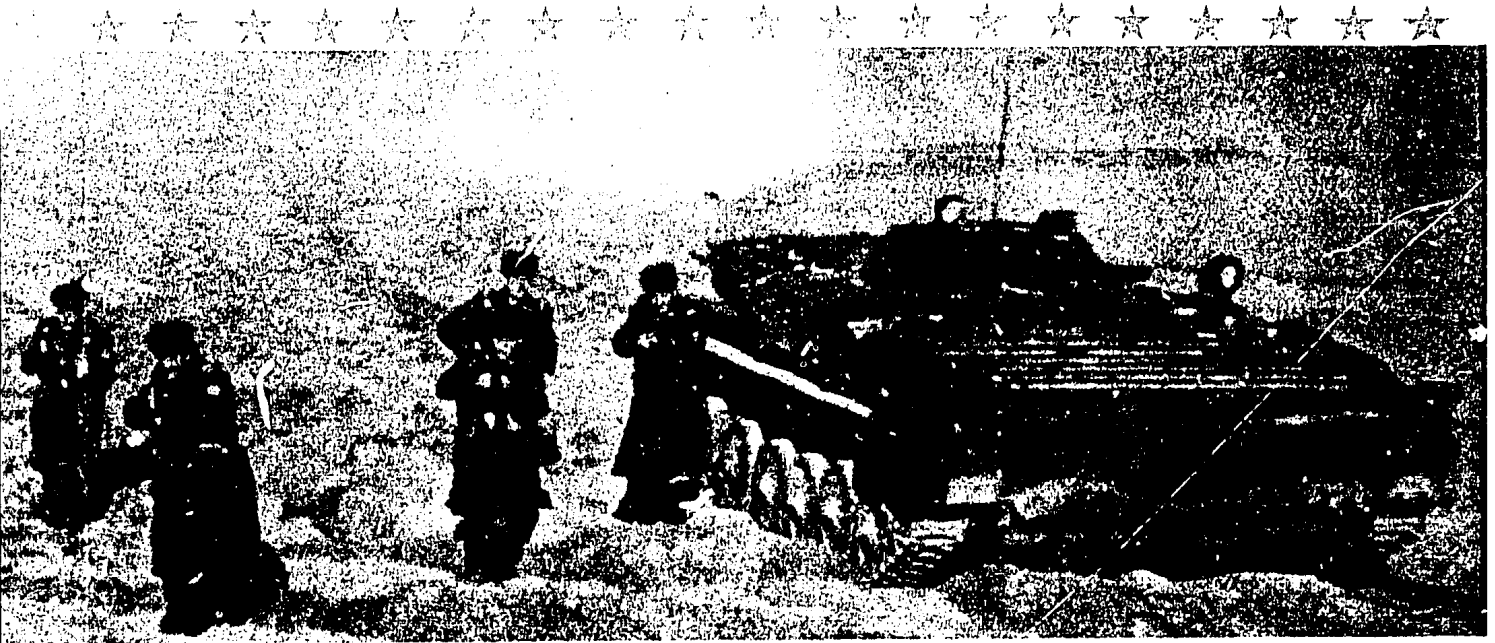
commander would mass the bulk of his forces along a front of less than 10 kilometers, leaving enough forces in other sectors to hold against an enemy counter-attack or to initiate diversionary thrusts. (See lower right diagram, page 19.)

The Nuclear Transition Dilemma. A basic problem faced by Soviet planners is the conflicting demand of massing forces for a conventional breakthrough and the requirement to avoid presenting a lucrative nuclear target. The solution devised calls for dispersed units to converge rapidly near the point of contact with the enemy, attack, achieve a breakthrough, and then disperse, continuing the advance or exploitation along a number of different axes. (See lower left diagram, page 19.)

This tactic is designed to minimize the time during which the attacking force would be exposed to nuclear strikes. It is also intended to complicate the enemy's use of nuclear weapons by having the attacking units come together for the assault at a point as close as possible to the enemy's lines so that he cannot effectively employ nuclear weapons without hitting his own troops. This tactic is recognized as having no guarantee of success, however. This is apparent from the considerable attention Soviet planners continue to devote to the coordination and communication problems associated with

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moving large attacking forces covertly, committing them from the march, dispersing them, and replacing anticipated large losses.

Tank Forces in a Modern Offensive

The Soviets envision three basic roles for tanks in a modern ground offensive.

- The tanks in motorized rifle divisions would be used to support infantry by providing mobile firepower during their assaults on enemy defenses.
- Once the defenses were penetrated, tank units would advance quickly through the gaps to defeat enemy reserves in a "meeting engagement."
- Tank units would then pursue retreating enemy units to the depth of the theater.

As Infantry Support. Because of their critical role in virtually every phase of an offensive, tanks are organic to all Soviet motorized infantry units from regimental echelon through army. Motorized rifle units down to battalion and company level--although without organic tanks--probably would be

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assigned tanks from the regimental tank battalion for assault operations.

In a conventional campaign the Soviets would rely on motorized infantry supported by tanks and artillery to create conditions favorable for the commitment of the larger tank units.

In an assault the tank companies of a motorized rifle regiment would generally be used to form an initial echelon with motorized rifle companies. If heavy antitank defenses were encountered, they would first be engaged by artillery and long-range tank fire and then by dismounted infantry supported by machine-gun fire from their armored personnel carriers. The Soviets, in fact, anticipate that, in a conventional offensive, their infantry in most cases would be attacking on foot. (See photograph, page 21.)

If weak defenses were encountered, or if nuclear weapons were employed to neutralize enemy defensive positions, then tank units would be in the vanguard of the attack, followed by APC-mounted infantry.

In Meeting Engagements. In the Soviet view, the decisive blow in a ground operation would be delivered in a confrontation between the attacker's large tank units, which had been committed to exploit the breach in the enemy's defenses, and the enemy's armored forces, which had been held in reserve for counter-attack purposes. (See diagram at right.) In both Soviet and Western military terminology, this confrontation is known as the "meeting engagement."

The meeting engagement is a battle of maneuver in which highly mobile forces on both sides engage each other from the march, with neither side in a defensive posture. In most cases, the combatants would come upon each other suddenly with little opportunity for preplanning or reconnoitering. Under such conditions the side with the superior commanders and the more responsive command and control probably would prevail. The Soviets believe that meeting engagements would be especially common on the nuclear battlefield



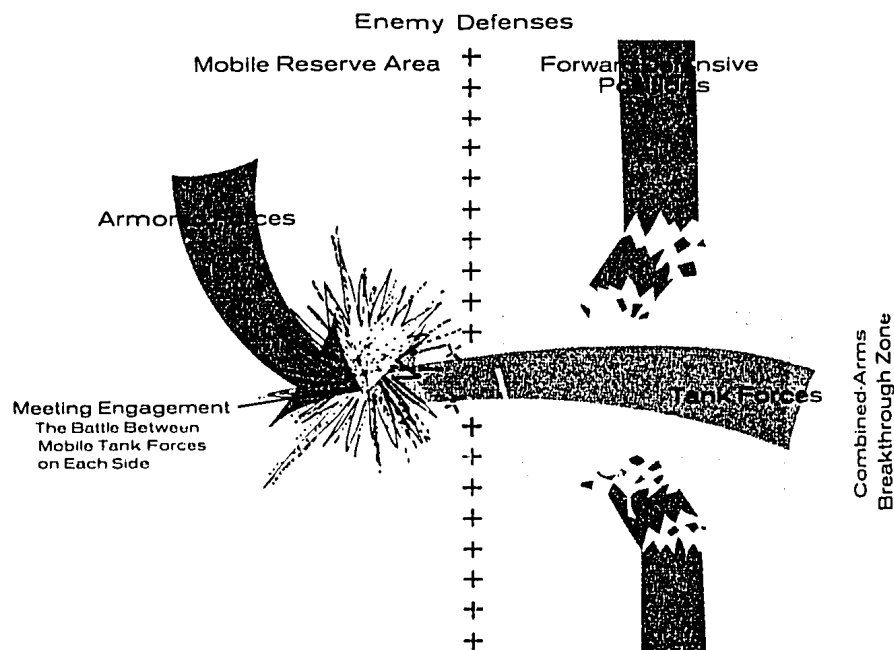
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Conceptual Meeting Engagement in a Breakthrough



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In Pursuit. According to the Soviet concept, pursuit of withdrawing enemy units would begin after a Soviet breakthrough and a successful meeting engagement. Tank units, with their mobility and shock power, would play the key role in pursuit operations.

The objective of pursuit operations is the early destruction, isolation, or entrapment of the retreating enemy armies. Soviet tank forces would in effect be racing retreating units to likely defensive barriers such as the Rhine, and to resupply and embarkation points deep in the enemy rear area.

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